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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,231	02/19/2004	Lothar Benedict Erhard Josef Moeller	Moeller 19-8	5230

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EXAMINER	
KIM, DAVID S	

ART UNIT	PAPER NUMBER
2613	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/782,231	Applicant(s) MOELLER ET AL.	
	Examiner David S. Kim	Art Unit 2613	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 07 August 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
   b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: _____.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☒ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER

Continuation of 11. does NOT place the application in condition for allowance because:
Applicant's arguments, filed on 07 August 2007, have been considered, but they are not persuasive. Applicant presents three salient points.

Regarding the first point, Applicant states:

"First, the Applicants submit that, as correctly noticed by the Examiner in the above-cited passage, changing the application of an 'OR' function to the application of an 'AND' function requires a recognition of the fact that incorrect decoding of optical 'zeros,' rather than optical 'ones,' can be a major source of decoding errors. However, that recognition is absent in Moeller-022 because Moeller-022 deals with decoding of optical return-to-zero (RZ) signals having a relatively small duty cycle, e.g., about 33% (see, e.g., Moeller-022's Figs. 3-4 and paragraphs [0018]-[0019]). When an optical signal has a small duty cycle, transmission impediments, such as jitter, do not increase the error probability for optical 'zeros' (see, e.g., the last sentence of Moeller-022's paragraph [0026]). Therefore, there is no problem of incorrect decoding of optical 'zeros' in Moeller-022, and it could not have been recognized there. In contrast, the present application recognized that, for optical signals broadened by dispersion and/or having a relatively large duty cycle, e.g., about 100%, incorrect decoding of optical 'zeros' can be a major source of decoding errors (see, e.g., Applicants' Figs. 3A and 4A-B and page 5, lines 1-5)" (REMARKS/ARGUMENTS, p. 2, 5th paragraph).

Examiner respectfully notes that the teachings of Moeller-022 apply to a broader scope than just this particular example. For example, claim 9 of Moeller-022 discloses a scenario that employs non-return-to-zero (NRZ) pulses, which have a duty cycle of at least 100%. For such a scenario, jitter would increase the error probability for optical "zeros". Accordingly, Applicant's point is not persuasive.

Regarding the second point, Applicant states:

"Second, the Applicants submit that Moeller-022 does not suggest applying logical functions other than the 'OR' function, the Examiner's statement to the contrary notwithstanding. More specifically, the relevant portion of relied-upon by the Examiner paragraph [0020] in Moeller-022 reads as follows:

> Although the front-end pre-amplified receiver 200 of FIG. 2 is depicted as a relatively complex receiver, a less complex conventional front-end pre-amplified receiver can also be implemented within various embodiments of the present invention. Additionally, although the logic circuitry 260 of FIG. 2 is depicted as an OR logic gate, other circuitry or devices that are able to determine a resulting logic state of at least one input signal can be implemented with the concepts of the present invention. [Emphasis added.]

It is clear from the context of paragraph [0020] that what is being discussed here is different hardware implementations of the same functionality, and not a different functionality as implied by the Examiner. Indeed, the first of the above-cited sentences talks about replacing relatively complex front-end pre-amplified receiver 200 by a less complex receiver capable of performing the same function as receiver 200. Likewise, the second of the above-cited sentences talks about replacing an OR logic gate with a different circuit capable of performing the same logic function as the OR gate. The Applicants submit that reading a suggestion of a logic function change into the above-cited text is unwarranted and improper" (REMARKS/ARGUMENTS, p. 2-3, bridging paragraph).

Examiner respectfully notes that Applicant's reading of paragraph [0020] may be unnecessarily narrow in scope. That is, claim 1 of Moeller-022 suggests a broader use of logic as the invention of Moeller-022 as no mention of an OR gate appears in the claims until dependent claim 11 of Moeller-022. Although an OR logic function is expressly disclosed, the contextual principles of Moeller-022 do not appear to exclusively limit the logic function to that of an OR logic function. Accordingly, Applicant's point is not persuasive.

Regarding the third point, Applicant states:

"Finally, and perhaps most importantly, changing the 'OR' functionality of logic circuitry 260 to a different logic functionality, e.g., the 'AND' functionality, would increase, rather than decrease, the number of decoding errors in receivers disclosed in Moeller-022 (see, e.g., Moeller-022's Fig. 4). The Applicants submit that a modification that would actually worsen the performance would not occur to one of ordinary skill in the art" (REMARKS/ARGUMENTS, p. 3, 1st full paragraph).

Examiner respectfully notes that the scope of the invention of Moeller-022 is broader than the specific examples provided (e.g., Fig. 4). For example, paragraph [0017] states that "the inventive concept can be advantageously implemented in various other transmission systems wherein it is desirable to improve a jitter tolerance". The example provided by Moeller-022 is that of properly detecting a logical "one" value (i.e., Fig. 3) represented by a return-to-zero (RZ) pulse. In the field of logic processing, it is an extremely common and obvious practice to consider inverse scenarios since inverse scenarios provide equivalent functionality with alternate logic values (e.g., changing "one" values to "zero" values and vice versa). An inverse scenario to the example of Moeller-022 could be that of properly detecting a "zero" value, represented by a notch or "valley" between two neighboring "plateaus" of high value. Whereas the express example of Moeller-022 focuses on decreasing the error probability for "ones", an inverse scenario could focus on decreasing the error proabability for "zeros". In view of such considerations, the OR logic function in the express example of Moeller-022 would provide the equivalent inventive functionality as that of an AND logic function in an inverse scenario. The rationale for using either logic function would be the same: to reduce the error probability for a particular bit estimate value, i.e., "one" values for the express example of Moeller-022 and "zero" values for an inverse scenario, resulting in improved performance for each respective scenario. Accordingly, Applicant's point is not persuasive.

Summarily, Applicant's arguments are not persuasive. Accordingly, Examiner respectfully maintains the standing rejections.